67,023-008

Amendments to Claims:

This listing of claims will replace all prior revisions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) An exhaust gas measurement system comprising:

a probe defining a sample exhaust gas passageway for collecting exhaust gas;

a stainless steel canister fluidly connected to said probe for storing the exhaust gas;

a pump fluidly interconnected between said probe and said canister for transferring the exhaust gas from said probe to said canister;

a pressure mass flow controller fluidly interconnected between said probe and said canister producing a exhaust gas flow measurement corresponding to the flow of the exhaust gas from said probe to said canister;

a temperature sensor for sensing a temperature of the exhaust gas proximate to said pressure mass flow controller, said temperature sensor correcting said exhaust gas flow measurement based upon said temperature;

a pressure sensor for sensing a pressure of the exhaust gas proximate to said pressure mass flow controller, said pressure sensor correcting said exhaust gas flow measurement based upon said pressure; and

a heating device heating said stainless steel canister and said pressure mass flow controller.

2. (Original) The system according to claim 1, wherein an exhaust gas analyzer is fluidly connected to said canister.

3. (Original) The system according to claim 2, wherein a second pump is fluidly interconnected between said canister and said analyzer for transferring the stored exhaust gas from said canister to said analyzer.

4. (Original) The system according to claim 2, wherein said analyzer is a gas chromatograph flame ionization detector.

5. (Currently Amended) [The system according to claim 3,]An exhaust gas measurement system comprising:

a probe defining a sample exhaust gas passageway for collecting exhaust gas;

a stainless steel canister fluidly connected to said probe for storing the exhaust gas;

a pump fluidly interconnected between said probe and said canister for transferring the exhaust gas from said probe to said canister;

a pressure mass flow controller fluidly interconnected between said probe and said canister producing a exhaust gas flow measurement corresponding to the flow of the exhaust gas from said probe to said canister;

a temperature sensor for sensing a temperature of the exhaust gas proximate to said pressure mass flow controller, said temperature sensor correcting said exhaust gas flow measurement based upon said temperature;

a pressure sensor for sensing a pressure of the exhaust gas proximate to said pressure mass flow controller, said pressure sensor correcting said exhaust gas flow measurement based upon said pressure;

a heating device heating said stainless steel canister and said pressure mass flow controller;

wherein an exhaust gas analyzer is fluidly connected to said canister;

wherein a second pump is fluidly interconnected between said canister and said analyzer for transferring the stored exhaust gas from said canister to said analyzer; and

wherein a second pressure mass flow controller fluidly is interconnected between said canister and said analyzer producing a second exhaust gas flow measurement corresponding to the flow of exhaust gas from said canister to said analyzer, further including a second temperature sensor for sensing a second temperature of the exhaust gas proximate to said second pressure mass flow controller, said second temperature sensor correcting said second exhaust flow measurement based upon said second temperature, and a second pressure sensor for sensing a second pressure of the exhaust gas proximate to said second pressure mass flow controller, said second temperature sensor correcting said second exhaust flow measurement based upon said second pressure.

6. (Original) The system according to claim 5, wherein said heating device heating said second pressure mass flow controller.

7. (Original) The system according to claim 6, wherein said heating device heats said second pressure mass flow controller to approximately 191°C.

8. (Original) The system according to claim 1, wherein said heating device heats said canister and said pressure mass flow controller to approximately 191°C.

9. (Original) The system according to claim 3, wherein a valve assembly fluidly interconnects said pump, said second pump, and said canister with said valve assembly selectively controlling the flow of exhaust gas between said pump and said canister and said canister and said second pump.

10. (Original) The system according to claim 1, wherein a third pump is fluidly interconnected to said canister for evacuating the contents of said canister.

11. (Original) The system according to claim 10, wherein a second valve assembly fluidly interconnects said canister and said third pump with said second valve assembly selectively controlling the flow of exhaust gas between said canister and said third pump.

12. (Original) A method of measuring products of combustion in exhaust gases comprising the steps of:

a) sampling exhaust gases from an exhaust source;

b) pumping the exhaust gases to a canister;

c) measuring the amount of exhaust gases entering the canister with a pressure mass flow controller; and

d) heating the canister to a desired temperature to prevent condensation of a portion of the products of combustion.

13. (Original) The method according to claim 12, wherein step c) includes measuring a temperature of the exhaust gases proximate to the pressure mass flow controller and adjusting the mass flow controller to more accurately measure the amount of exhaust gases in response to the measured temperature.

14. (Original) The method according to claim 12, wherein step c) includes measuring a pressure of the exhaust gases proximate to the pressure mass flow controller and adjusting the mass flow controller to more accurately measure the amount of exhaust gases in response to the measured pressure.

15. (Original) The method according to claim 12, wherein step d) includes heating the canister to approximately 191°C.

16. (Original) The method according to claim 15, wherein step d) includes heating the pressure mass flow controller to approximately 191°C.

17. (Original) The method according to claim 12, further including the steps of:

e) pumping the exhaust gases from the canister to an analyzer; and

f) determining the portion of the products of combustion with the analyzer.

18. (Original) The method according to claim 17, wherein step f) includes determining the amount of long chain hydrocarbons.

19. (Currently Amended) A method of measuring products of combustion in exhaust gases comprising the steps of:

a) sampling exhaust gases from an exhaust source;

b) pumping the exhaust gases to a canister;

c) measuring the amount of exhaust gases entering the canister with a pressure mass flow controller; and

d) heating the canister to a desired temperature to prevent condensation of a portion of the products of combustion;

e) pumping the exhaust gases from the canister to an analyzer;

f) determining the portion of the products of combustion with the analyzer; and

[The method according to claim 17, further including step] g) measuring the amount of exhaust gases flowing to the analyzer with a second pressure mass flow controller.

20. (Original) The method according to claim 19, wherein step g) includes measuring a second temperature of the exhaust gases proximate to the second pressure mass flow controller and adjusting the second mass flow controller to more accurately measure the amount of exhaust gases in response to the measured second temperature.

21. (Original) The method according to claim 19, wherein step g) includes measuring a second pressure of the exhaust gases proximate to the second pressure mass flow controller and adjusting the second mass flow controller to more accurately measure the amount of exhaust gases in response to the measured second pressure.

22. (Original) The method according to claim 19, wherein step d) includes heating the second mass flow controller to approximately 191°C.